

**RECENT ADVANCES IN SURGICAL MANAGEMENT OF
REGULAR ASTIGMATISM**

Essay

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List of abbreviations

ACD.....	Anterior Chamber Depth
AK.....	Astigmatic keratotomy
ALL	Anterior Limiting Lamina
ASC	Anterior Subcapsular Opacity
ATR.....	Against-The-Rule
BCVA.....	Best Corrected Visual Acuity
(B&L).....	Bausch and Lomb
"C"	Canrobert procedure
CCI.....	Clear Corneal Incision
CK	Conductive keratoplasty
C-PMMA.....	C-Polymethyl Methacrylate
DLD	Digital Light Delivery Device.
DLK.....	Diffuse Lamellar Keratitis
ECD	Endothelial Cell Density
ECL.....	Equivalent Contact Lens Power
ELP,.....	Effective Lens Power
FDA.....	Food and Drug Administration
FDAK.....	Full Arc, Depth Dependent Astigmatic Keratotomy
FS- LAR.....	Femtosecond Laser Arcuate Resection
ICL.....	Implantable Collamer Lens
I/A.....	Irrigation / Aspiration
LAL.....	Light-Adjustable Lens.
LASEK.....	Laser Assisted Sub-Epithelial Keratotomy
LASIK.....	Laser In-Situ Keratomileusis
LRIs.....	Limbal Relaxing Incisions

OVD.....Ophthalmic Viscoelastic Device
 PCRI.....Peripheral Corneal Relaxing Incisions
 POF.....Plane Of Focus
 PIOLs.....Phakic Intra Ocular Lenses
 PLMPosterior Limiting Membrane
 PRKPhotorefractive Keratectomy
 RGP.....Rigid Gas Permeable
 SCL.....Soft Contact Lenses
 SE.....Spherical Equivalent
 TIOLsToric Intraocular Lenses
 UCVA.....Uncorrected Visual Acuity
 WTRWith-The-Rule Astigmatism
 YAGYttrium–Aluminum–Garnet Laser

Aim of the work

To review the literature regarding the diagnosis and recent surgical treatments in patients suffering of regular astigmatism.

RECENT ADVANCES IN SURGICAL MANAGEMENT OF REGULAR ASTIGMATISM

CHAPTER I

ANATOMICAL, PHYSIOLOGICAL AND OPTICAL VIEW

ANATOMY OF THE CORNEA

- Gross structure
- Microscopic Structure

INNERVATION OF THE CORNEA

PHYSIOLOGY OF THE CORNEA

- Keeping the cornea transparent

OPTICAL AND MECHANICAL PROPERTIES OF CORNEA

- Introduction
- Corneal curvature
- Corneal power
- Corneal thickness
- *Mechanical properties*

OCULAR ASTIGMATISM

- *Definition of ocular astigmatism*
- *Incidence and prevalence of ocular astigmatism*
- *Etiology of ocular astigmatism*
- *Optics of ocular astigmatism*
- *Types of Astigmatism*
- *Symptoms of ocular astigmatism*